

Expanding Community-based Tools to Enhance the Assimilation of Satellite Data in Operational Environmental Analyses and Models

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The Joint Center for Satellite Data Assimilation (JCSDA) provides a testbed for NOAA, the DOD, and NASA to accelerate the use of and increase the impact of satellite data in operational environmental analyses and models. The diverse modeling and data assimilation systems of the multiple partners engaged in the JCSDA pose a challenge to transferring successful developments and implementations from one partner to others without additional, duplicative efforts that divert valuable resources. For this reason, the JCSDA pursues the collaborative development and use of community-based tools that are readily portable and can be used in multiple environments. In this presentation, recent improvements and planned extensions to the Community-based Radiative Transfer Model (CRTM) are described, with examples of the resulting impact on numerical weather prediction (NWP) forecast models provided. In addition the architecture and initial development of the newly established JCSDA Environment for Data assimilation Integration (JEDI) is explained.